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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,717	12/30/2004	Qin Xu	P70334US0	7510

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EXAMINER

GOODWIN, JEANNE M

ART UNIT	PAPER NUMBER
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2833

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/519,717

Applicant(s)

XU ET AL.

Examiner

Jeanne-Marguerite Goodwin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 21, 22 objected to because of the following informalities: In claims 21, 22: "said insulator" lacks antecedent basis. Perhaps, it should be dependent on claim 20. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-17, 19, 23, 24 rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0071346 to Paratte et al. [hereinafter Paratte] in view of US 5646634 to Bokhari et al. [hereinafter Bokhari].

Regarding claim 15: Paratte disclose a timepiece, in particular wristwatch (1) comprising a middle (4), a watch movement housed in the middle (see figure below), a transceiver circuit (78) associated with said movement and an antenna (80) connected to said transceiver circuit (78) [0061], wherein said antenna (80) is formed by a solid electrically conductive mass [0062] having the shape of at least a portion of a ring (Figs. 13 and 14), this mass [0061] being disposed on the periphery of said middle (Figs. 9-14), said antenna being connected to the transceiver circuit by way of a conductor passing through the wall of the middle

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on a portion of its thickness [0061 and 0064] (Figs. 13 and 14). Paratte discloses a device as stated above with regards to claim 1, respectively. Paratte discloses all the subject matter claimed by applicant with the exception of the limitation stated in claim 1, i.e., the antenna being a solid monobloc mass. Bokhari discloses a timepiece using a solid monobloc mass antenna assembly (1-3, 40-53) (Figs. 1-20). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace the antenna assembly, as taught by Paratte, with the antenna assembly of Bokhari, in order to obtain the desired resonance frequency of the antenna, as already suggested by Bokhari.

Regarding claim 16: Paratte discloses a device as stated above with regards to claims 1, respectively. Paratte discloses all the subject matter claimed by applicant with the exception of the limitation stated in claim 16, i.e., wherein said conductive solid mass forms a decorative portion thereof. Bokhari discloses a timepiece comprising an antenna assembly having conductive solid mass forming a decorative portion thereof (1-3, 40-53) (Figs. 1-20). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to, in order to provide for a miniaturized antenna assembly, as already suggested by Bokhari.

Regarding claim 17: Paratte discloses the timepiece according to claim 15, wherein said conductive mass is engaged in a groove made in the lateral surface of the middle, its outer surface just touching the lateral surface of the middle [0078] (Figs. 13 and 14).

Regarding claim 19: Paratte discloses the timepiece according to claim 19, wherein conductive mass constitutes a closed ring (Figs. 13 and 14).

Regarding claim 23: The combination of Paratte and Bokhari disclose a device as stated above with regards to claim 15. The combination of Paratte and Bokhari disclose all the subject matter claimed by applicant with the exception of the limitation stated in claim 23, i.e., wherein said conductive solid mass is made of a metal such as stainless steel or a gold alloy or made of an agglomerated composite mass, in zirconium for example, charged with conductive particles. Furthermore, the particular type of solid conductive mass (antenna), absent any criticality, is only considered to be the use of a "preferred" solid conductive mass material out of a plurality of well known solid conductive mass materials commonly used to provide signal transmission and/or reception that a person having ordinary skill in the art at the time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of applicant's apparatus, i.e., suitability for the intended use of applicant's apparatus. See In re Leshin, 125 USPQ 416 (CCPA 1960) where the court stated that a selection of a material on the basis of suitability for the intended use of an apparatus would be entirely obvious.

Regarding claim 24: The combination of Paratte and Bokhari disclose a device as stated above with regards to claim 15. The combination of Paratte and Bokhari disclose all the subject matter claimed by applicant with the exception of the limitation stated in claim 24, i.e., wherein said solid conductive mass is coated with a very hard layer, made for example of rhodium or diamond. Furthermore, the particular type of solid conductive mass (antenna), absent any criticality, is only considered to be the use of a "preferred" solid conductive mass material out of a plurality of well known solid conductive mass materials commonly used to provide signal transmission and/or reception that a person having ordinary skill in the art at the time the

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invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of applicant's apparatus, i.e., suitability for the intended use of applicant's apparatus. See In re Leshin, 125 USPQ 416 (CCPA 1960) where the court stated that a selection of a material on the basis of suitability for the intended use of an apparatus would be entirely obvious.

4. Claim 18 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Paratte and Bokhari as applied to claim 15 above, and further in view of US 5798984 to Koch.

Regarding claim 18: Paratte further discloses a bezel (22) and a glass disk (28). The combination of Paratte and Bokhari disclose a device as stated above with regards to claim 15. Paratte and Bokhari disclose all the subject matter claimed by applicant with the exception of the limitation stated in claim 18, i.e., wherein said conductive solid mass forms at least a portion of a bezel of the piece surrounding the glass disk of the latter. Koch discloses a timepiece teaching a conductive mass (22) forming at least a portion of a bezel (14) of the piece surrounding the glass disk (12) (Figs. 2 and 3). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to place the antenna assembly, as taught by the combination of Paratte and Bokhari, in the bezel, as taught by Koch, in order to allow the case and the bezel to be sold separately and match the bezel containing the antenna and the transmitting and/or receiving circuit corresponding to the required service to the user's wristwatch, as already suggested by Koch.

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5. Claims 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Paratte, Bokhari and Koch as applied to claims 15 and 18 above, and further in view of 6853605 to Fujisawa et al. [hereinafter Fujisawa].

Regarding claim 20: Paratte, Bokhari and Koch further discloses a glass disk and a middle being made of electrically conductive material. The combination of Paratte, Bokhari and Koch disclose a device as stated above with regards to claim 15. Paratte, Bokhari and Koch disclose all the subject matter claimed by applicant with the exception of the limitation stated in claim 20, i.e., said conductive solid mass is separated therefrom by an insulator. Fujisawa discloses a crystal (102 construction made from a material that is insulating, e.g., sapphire or polycarbonate. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace the glass, as taught by the combination of Paratte, Bokhari and Koch, with the glass crystal, as taught by Fujisawa, in order to provide electrical insulation, as already suggested by Fujisawa.

Regarding claim 21: Paratte, Bokhari and Koch further discloses a timepiece, wherein the insulator is made of a material chosen from the group consisting of the nitride rubbers, hydrogenated nitride rubbers, polyurethanes, silicones, polymers or ceramics. Furthermore, the particular type of insulator material, absent any criticality, is only considered to be the use of a "preferred" insulator material out of a plurality of well known insulator materials commonly used to provide electrical insulation that a person having ordinary skill in the art at the time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of applicant's apparatus, i.e., suitability for the intended use of applicant's apparatus. See In re Leshin, 125 USPQ 416 (CCPA 1960) where the court

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stated that a selection of a material on the basis of suitability for the intended use of an apparatus would be entirely obvious.

Regarding claim 22: The combination of Paratte, Bokhari and Koch disclose a device as stated above with regards to claims 15 and 20, respectively. Paratte, Bokhari and Koch disclose all the subject matter claimed by applicant with the exception of the limitation stated in claim 22, i.e., said insulator are fixedly attached to said middle by at least one of the following operations: chasing, screwing, bonding, brazing, crimping and/or riveting. The method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

6. Claims 25-28 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Paratte and Bokhari as applied to claim 15 above.

Regarding claim 25: The combination of Paratte and Bokhari disclose a device as stated above with regards to claim 15. Bokhari's timepiece conductive element forms a ground plane for said antenna. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to add the ground plane, as taught by Bokhari, to the antenna assembly of Paratte, in order provide for an electrically conductive surface, as already suggested by Bokhari.

Regarding claim 26: Paratte's timepiece middle is made of a metallic material [0043]. Furthermore, the particular type of middle material, absent any criticality, is only considered to be the use of a "preferred" middle material out of a plurality of well known middle materials commonly used to provide electrical insulation that a person having ordinary skill in the art at the

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time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of applicant's apparatus, i.e., suitability for the intended use of applicant's apparatus. See In re Leshin, 125 USPQ 416 (CCPA 1960) where the court stated that a selection of a material on the basis of suitability for the intended use of an apparatus would be entirely obvious.

Regarding claim 27: The combination of Paratte and Bokhari disclose a device as stated above with regards to claims 15 and 25, respectively. Paratte's timepiece middle being of an electrically nonconductive material [0044-0051]. Bokhari's timepiece said conductive element (1-3, 40-53) (Figs. 1-20) forming the earth plane consists of a metal disk placed inside the middle against the back of the latter. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to add the ground plane, as taught by Bokhari, to the antenna assembly of Paratte, in order to provide for a miniaturized antenna assembly, as already suggested by Bokhari.

Regarding claim 28: The combination of Paratte and Bokhari disclose a device as stated above with regards to claims 15. Paratte's antenna (80) is connected directly to the transceiver (78). Bokhari's timepiece antenna is of the capacitive type said conductive element (col. 3, line 55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to add the antenna assembly, as taught by Bokhari, to the antenna assembly of Paratte, in order to provide for an electrical connection without any mechanical contact.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 disclose related devices. US 6531988 to Koyama, US 5926144 to Bolanos et al., US 5367502 to Barroso et al., US 6278873 to Itakura et al., US 7151496 to Casagrande et al., and US 7167134 to Minami et al. discloses antenna assemblies in wristwatches.

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Jeanne-Marguerite Goodwin whose telephone number is (571) 272-2104. The examiner can normally be reached on Monday-Friday (9am-6pm), alternate Fridays off. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2861.

JMG
April 9, 2007



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